

memorandum

DATE: November 12, 2003

REPLY TO
ATTN OF: KEP-4

SUBJECT: Supplement Analysis for the Transmission System Vegetation Management Program FEIS
(DOE/EIS-0285/SA-188-Naselle Tap to the Allston-Astoria No. 1 115 kV)

TO: James A. Jellison – TFO/Olympia

Proposed Action: Vegetation Management along the Naselle Tap to the Allston-Astoria No. 1 115 kV (reference line, ADNO 8102) line corridor from structure 5/1 through structure 35/1. Right of way width averages 125 feet.

Location: The project area is located in Pacific and Wahkiakum Counties, Washington between the cities of Naselle to the West and Cathlamet to the East.

Proposed by: Bonneville Power Administration (BPA).

Description of the Proposal: BPA proposes to maintain tall growing and unwanted species of vegetation along the right-of-way, access roads, and around tower structures along the subject transmission line corridor. Approximately 412 acres of right-of-way and 6.5 miles of access roads will be managed. Tower sites will be managed 30 feet from center of poles and/or tower legs. The vegetation management treatments consist of selective and non-selective methods that include hand cutting, mowing and herbicide treatments. Vegetation management is required for unimpeded operation, reliability, and maintenance of the subject transmission line. See Section 1 of the attached checklist for a complete description of the proposal.

Analysis: Please see the attached checklists for the resources present. Applicable findings and conservation and avoidance measures are discussed below.

Planning Steps:

1. Identify facility and the vegetation management need.

Tall growing and unwanted vegetation will be controlled and/or removed using selective and nonselective methods that will include hand cutting, mowing, and herbicidal treatment. All methods of herbicide treatment may be used (except aerial) dependent on site conditions/restrictions as described below. This proposal covers approximately 412 acres of land between towers 5/1 through 35/1 on the Naselle Tap to the Allston-Astoria No. 1 115 kV (reference line) corridor. The entire width of the corridor will be managed.

2. Identify surrounding land use and landowners/managers and any conservation and avoidance measures.

The subject corridor traverses private residential, private timber company, and State of Washington (DNR) lands in Pacific and Wahkiakum Counties, Washington.

State agencies and landowners requiring notification or under tree and brush agreements are shown in Section 2.3 and 2.4 of the attached checklists. Any remaining landowners will be contacted (letters, personal contact, door hangers, etc.) by BPA before and during the project. Any input received will be incorporated into the prescription/cut sheets.

3. *Identify natural resources and any conservation and avoidance measures.*

Section 3 of the attached checklist identifies the natural resources present in the area of the proposed work. The following cites resources found along with applicable conservation and avoidance measures:

Riparian Habitat:

Includes all wetlands, streams, and creeks meeting the definition of riparian habitat. Several areas were identified. See Section 3.1 of the checklists for a complete listing and conservation and avoidance methods.

Riparian Habitat Conservation and avoidance measures:

- Within 30.5 m (100 ft) of any stream, wetland, or other water body vegetation will be left intact where possible and only selective hand cutting and approved herbicide treatments will be implemented.
- Outside of 30.5 m (100 ft.) of any non Essential Fish Habitat (Anadromous Fish Habitat) listed stream, wetland, or other water body. Available: all manual, spot and localized herbicide treatments. On slopes less than 20% there will be no disturbance within 35ft. of the stream or wetland. On slopes greater than 20% there will be no disturbance within the buffer.
- Within 35ft. to edge or high water mark of any non Essential Fish Habitat listed stream, wetland, or other water body only cut-stump and localized or spot chemical treatments using practically non-toxic to slightly toxic formulations of triclopyr TEA (Garlon 3A) may be used. Moderately toxic to very highly toxic herbicides (to aquatic species) or those herbicides containing a groundwater or surface water label advisory will not be used in this zone.
- Outside 35 ft. of any of non Essential Fish Habitat listed stream, wetland, or other water body cut-stump (spot) and localized chemical treatments of Triclopyr BEE (Garlon 4) may be used.

Essential Fish Habitat (EFH):

Several streams that cross the transmission line corridor are listed as Essential Fish Habitat for Chinook, Coho, Chum Salmons, and summer and fall run Steelhead including the Elochoman, Grays, Naselle rivers, Falk, Wilson, Skamokawa, West Fork Skamokawa, West valley, Cadman, Malone, and Salmon Creeks. See section 3.1 of the checklist for details. By following the conservation and avoidance measures listed below and in the above listed C&A Measures for riparian habitat the project will have a **no effect** on anadromous fish Essential Habitat.

Essential Fish Habitat (EFH) Conservation and avoidance measures:

- All conservation and avoidance measures listed under riparian habitat will be implemented. Along with the more protective measures listed below.
- No herbicides will be applied within 100 feet of the waters edge of any T&E or Essential Fish Habitat listed water bodies. Spot spraying of non-toxic to practically non-toxic (to aquatic species) herbicides or those herbicides containing a groundwater or surface water label advisory may be applied 100-200 feet from the waters edge. Beyond 200 feet all vegetation management activities consistent with the Transmission System Vegetation Management Program Final EIS and ROD are available.

Drinking Water Supply:

Two drinking water wells and one spring were identified on or near the right of way boundary. See section 3.2 for a complete listing, description, and location of drinking water resources.

Drinking Water Supply Conservation and avoidance measures:

- Wells and springs used for drinking: No application of herbicides within a 164-foot radius of any water wells or springs used for drinking water.

T & E Species and critical habitat:

Review of the Washington Natural Heritage Program, BPA's Tview2 database, the Subasin Data Browser, NOAA website for protected resources, and various US Fish and Wildlife web sites shows Threatened and Endangered species that may occur in the project area. T&E Species that may occur in the project area included:

Marbled Murrelet (<i>Brachyrampus marmoratus</i>)	Threatened
Bald Eagle Nesting territory (<i>Haliaeetus leucocephalus</i>)	Threatened
Columbia Whitetail Deer (<i>Odocoileus virginianus leucurus</i>)	
Endangered	

Additionally a search of the National Marine Fisheries Service's web site shows two ESU's in the project area listed as:

Lower Columbia River Chinook Salmon ESU (<i>Oncorhynchus tshawytscha</i>)	Threatened
Columbia River Chum Salmon ESU (<i>Oncorhynchus keta</i>)	Threatened

T&E Species and Critical Habitat Conservation and avoidance measures:

- Review of BPA's Tview2 database and the Washington Natural Heritage Program shows Marbled Murrelets and a critical habitat unit #(WA-05-b) occur within one-quarter mile the project near Naselle Substation. The work will occur outside the protected core breeding season, April 1st - August 5th and the late breeding season, August 6th - September 15th. Follow up applications that may occur within the core breeding season do not carry out maintenance activities that produce noise above ambient noise levels, within 0.25 miles of any known marbled murrelet habitat or occupancy. During the late breeding season, do not carry out maintenance activities using motorized equipment within 0.25 miles of any known marbled murrelet habitat or occupancy within two hours after sunrise or within two hours before sunset.

No trees with a basal diameter greater than 18 inches will be removed from the fringes of the ROW. By following the above measures the project will have a **no effect** on Marbled Murrelets or designated critical habitat for the species.

- Review of BPA's Tview2 database and the Washington Natural Heritage Program shows a Bald Eagle nesting territory occurs outside ¼ mile of the transmission corridor a few miles east of Naselle substation. Work is to occur outside the protected nesting season, January 1st – August 15th, and therefore will have **no effect** on any potential bald eagles nesting near the project area. See section 3.3 of the checklist for more detailed information.
- Review of BPA's Tview2 database and the Washington Natural Heritage Program shows Columbia White tailed deer may be in the area of the project near Cathlamet, Washington. The deer have not been documented as occurring within ¼ mile of the right of way. Additionally vegetation management focuses on maintaining communities of low growing vegetation within the boundaries of the ROW and plant species that may be used, as a food source for the deer will not be affected. The project will not take place during the fawning season when young deer may use the brush along the ROW for cover. This project will have **no effect** on Columbia White tailed deer.
- Review of BPA's Tview2 database, the NOAA website for protected resources, and the Subasin Data Browser show ESA listed fall run Chinook and Chum Salmon do occur in three rivers in the project vicinity. By following the conservation and avoidance measures listed under "Essential Fish Habitat (EFH) Conservation and avoidance measures" above this project will have a **no effect** on Listed Chinook or Chum Salmon in the Lower Columbia River ESU or the Columbia River ESU respectively.

Cultural resources:

The Cowlitz and Chinook tribes were contacted and are not aware of any cultural resources in the transmission corridor. Should any cultural resources be discovered during the vegetation management project, work will be stopped in the vicinity and the tribes, the regional environmental specialist, and the BPA archeologist will be contacted. No work will continue in the area until the site has been thoroughly evaluated and released. See section 3.6 of the checklist for additional information.

4. Determine vegetation control methods.

Vegetation will be managed/removed using manual, mechanical, and chemical methods, as described in Section 4 of the attached checklists.

5. Determine debris disposal and re-vegetation methods, if necessary.

Debris will be disposed onsite using either chip, lop and scatter, or mulch techniques as described in Section 5.1 of the attached checklist.

Native grasses and low growing species are present in the areas of the ROW that will be managed. These populations will seed into the areas lightly disturbed by vegetation management. Re-vegetation needs will be determined onsite. Any areas identified with limited ground cover will be replanted with native plant species. See section 5.2 of the checklist for additional information.

6. Determine monitoring needs.

The project will be inspected during the work period, and again in the spring to determine vegetation management effectiveness and revegetation needs. The line will be patrolled annually after treatment to monitor the effectiveness of the treatment measures.

7. Prepare appropriate environmental documentation.

Findings: This Supplement Analysis finds that 1) the proposed actions are substantially consistent with the Transmission System Vegetation Management Program FEIS (DOE/EIS-0285) and ROD, and; 2) there are no new circumstances or information relevant to environmental concerns and bearing on the proposed actions or their impacts. This Supplement Analysis also finds the proposed actions will not affect threatened or endangered species. Therefore, no further NEPA or ESA documentation is required.

/s/ Greg P. Tippetts
 Greg P. Tippetts
 Physical Scientist (Environmental)

CONCUR: /s/ Thomas C. McKinney
 Thomas C. McKinney
 NEPA Compliance Officer

DATE: 11/13/2003

Attachment

cc:

L. Croff – KEC-4
 T. McKinney – KEC-4
 J. Meyer – KEP-4
 J. Sharpe – KEPR-4
 G. Tippetts – KEPR/Olympia
 P. Key – LC-7
 J. Hilliard Creecy – T-DITT2
 K. Rodd – TF/DOB-1
 D. Krauss – TFO/Olympia
 S. Martin – TFO/Olympia
 G. Westling – TFOF/Olympia
 Environmental File – KEC-4
 Official File – KEP-4 (EQ-14)

Vegetation Management Checklist
Naselle Tap to Allston-Astoria

1. IDENTIFY FACILITY AND THE VEGETATION MANAGEMENT NEED

1.1 Describe Right-of-way.

See Handbook — List of Right-of-way Components for checkboxes and the requirements for the components Rights-of-way, Access Roads, Switch Platforms, Danger Trees, and Microwave Beam paths.

Corridor Name	Corridor Length & kV	Easement width	Miles of Treatment
Naselle Tap to Allston-Astoria	30 mi., 115Kv	125, variable	30 mi.

Right Of Way:

Right-of-Way – clearing in right-of-way

A combination of mulching the easement because of the Scotch broom and the cut, lop and scatter of tall growing species will be utilized to treat hazardous vegetation and this will be followed up with a herbicide treatment.

Transmission Structures – clearing around

All structures will be cut and chemically treated to 30 feet from the center of the pole or from the legs of each steel tower.

Access Road clearing - approximate miles – 6.5 miles

All access roads will be either C, L&S, mulched or chipped due to the encroachment of Scotch broom, blackberries, low and tall growing brush and trees then either stump or foliar chemical treatment will be applied.

1.2 Describe the vegetation needing management.

See handbook — [List of Vegetation Types](#), [Density](#), [Noxious Weeds](#) for checkboxes and requirements.

Vegetation Types:

Douglas Fir	True Fir
Hemlock	Alder
Maple	Willows
Cottonwood	Wild Cherry
Noxious Weeds - Scotch Broom	Gorst
Blackberries	Cascara
Wild Filbert	

1.3 List measures you will take to help promote low-growing plant communities. If promoting low-growing plants is not appropriate for this project, explain why.

See Handbook — for requirements and checkboxes.

Cut stump or follow-up herbicide treatments on sprouting-types species will be carried out to ensure that the roots are killed. Vegetation that will grow tall will be selectively eliminated before it reaches a height or density to begin competing with low-growing species.

1.4 Describe overall management scheme/schedule.

See Handbook - [Overall Management Scheme/Schedule](#).

Initial entry – All tall growing vegetation will be cut and chemically treat the stumps to prevent grow-in trees. Access, right-of-way roads and structure sites are to be cut and treated.

Subsequent entries – A follow-up chemical treatment to begin in the late spring or early summer of 2004.

Future cycles – Every 3 years, a maintenance contract will be necessary to treat sprouts. The use of herbicides on the initial and subsequent cycles should reduce the quantity and cost of work.

2. IDENTIFY SURROUNDING LAND USE AND LANDOWNERS/MANAGERS

2.1 List the types of landowners and land uses along your corridor.

See Handbook — [Landowners/Managers/Uses](#) for requirements, and [List of Landowners/Managers/Uses](#) for a checkbox list.

Landowners/Managers/Uses:

- Urban Property
- Rural Residential Property
- Cathlamet Timber Company
- Longview Fiber
- Washington State DNR

2.2 Describe method for notifying right-of-way landowners and requesting information (i.e., door hanger, letter, phone call, e-mail, and/or meeting). Develop landowner mail list, if appropriate.

See Handbook — [Methods for Notification and Requesting Information](#) for requirements.

Olympia Region will send letters to the property owners about 2-4 weeks prior to cutting the brush. Door to door contact will be made where it is warranted.

2.3 List the specific land owner/land use measures — determined from the handbook or through your consultations with the entities — that will be applied.

See handbook — [Requirements and Guidance for Various Landowners/Uses](#) for requirements and guidance, also [Residential/Commercial](#), [Agricultural](#), [Tribal Reservations](#), [FS-managed lands](#), [BLM –managed lands](#), [Other federal lands](#), [State/ Local Lands](#).

Span		Specific measures to be applied
From	To	
6/9+100	6/9+150	Unofficial-T&B Agreement

2.4 Review any existing landowner agreements (e.g. tree/brush Permits or Agreements). List in table above any provisions that need to be followed and where they are located.

See handbook — [Landowner Agreements](#) for requirements.

N/A

2.5 List any known casual informal use of the right-of-way by non-owner publics. List any constraints or measure's to take due to the informal use.

See handbook — [Casual Informal Use of Right-of-way](#) for requirements.

N/A

2.6 List other potentially affected people, agencies, or tribes (that are not landowners/managers) that need to be notified or coordinated with. Describe method of notification and coordination.

See handbook — [Other Potentially Affected Publics](#) for requirements and suggestions.

I have contacted Mike Ilwala, Cultural Resource Specialist of the Cowlitz Tribe regarding his knowledge of any cultural sites on the Naselle Tap to the Allston-Astoria easement. He is not aware of any cultural sites.

3. IDENTIFY NATURAL RESOURCES

See Handbook — [Natural Resources](#)

3.1 List any water resources (streams, rivers, lakes, wetlands) that may be impacted by vegetation control activities. For each water body describe the control methods and requirements or mitigation measures that will be used.

See Handbook — [Water Resources](#) for requirements for working near water resources including buffer zones.

Span		Water body	T&E/E/FH	Method	Herbicide	Application Technique	Buffer	Other
From	To							
7/6+115	185	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
7/8+165	235	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
7/11+35	200	No name creeks (3)	No	Skip				
8/2+115	185	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
8/6+165	235	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
9/7+0	500	Wetland/Pond	No	C,L&S	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
9/8+0	450	Wetland	No	C,L&S	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
9/9+0	400	Elochaman River	T&E	Skip				
10/1+1455	1655	Wetland	No	Skip				
10/2+0	1000	Wetland	No	Skip				

10/3+400	1145	Wetlands	No	Skip				
10/3+980	1050	Nelson Creek	No	Skip				
11/5+600	700	No name creek	No	Skip				
11/5+600	700	Risk Creek	No	Skip				
11/5+1265	1335	No name creek	No	Skip				
12/2+0	35	No name creek	No	Skip				
12/3+300	650	No name creek	No	C,L&S only	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
12/3+765	835	Alger Creek	EFH	Skip				
13/1+735	805	No name creek	No	Skip				
14/1+515	585	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
14/1+1015	1085	No name creek	No	Skip				
14/2+365	435	No name creek	No	Skip				
14/2+1165	1235	No name creek	No	Skip				
14/4+665	1135	No name creek(3)	No	Skip				
14/4+1300	1540	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
15/3+525	595	No name creek	No	Skip				
15/3+600	1200	Wtlds	No	Skip				
15/4+0	200	Drainage Slough	No	Skip				
15/4+650	850	Skamokawa Creek	T&E	Skip				
15/4+1015	1085	No name creek	No	Skip				
16/1+165	235	Ditch	No	Skip				
16/1+965	1035	Ditch	No	Skip				
16/1+0	1465	Wetlands	No	Skip				

16/2+125	235	Ditch	No	Skip				
16/2+865	935	Ditch	No	Skip				
16/2+0	1675	Wetlands	No	Skip				
16/3+435	505	West Fork Skamokawa Creek.	EFH	Skip				
16/3+1065	1135	Ditch	No	Skip				
16/3+0	1300	Wetlands	No	Skip				
17/2+915	985	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
17/3+600	1150	No name creek(3)	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
17/4+500	700	West Valley Ck	EFH	Skip				
17/4+700	900	Wetlands	No	C,L&S	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
20/3+900	1085	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
20/3+1315	1385	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
20/3+1865	1935	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
21/1+735	805	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
21/2+315	385	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
21/3+365	435	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
21/3+635	705	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
21/3+1315	1385	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
22/2+530	605	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
22/2+965	1035	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
23/3+1265	1335	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
23/4+400	700	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting

24/1+735	805	No name creek	No	Skip				
24/1+1365	1435	No name creek	No	Skip				
25/1+500	700	Grays River	T&E	Cut Stump	Garlon 3A	Spot Treat 100'of buff.	100'	Selective Cutting
25/1+700	900	Grays River	T&E	Skip				
25/1+800	2000	Wetlands	No	Skip				
25/2+90	160	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
25/3+1500	1700	Malone Creek	EFH	C,L&S			100'	Selective Cutting
26/3+115	185	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
26/3+665	835	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
27/2+1065	1135	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
27/3+500	900	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
27/3+600	1000	Wetlands	No	C,L&S	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
27/4+315	385	Hendrickson Creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
27/4+730	800	Hendrickson Creek	No	Skip				
27/4+800	1050	Hendrickson Creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
27/5+350	700	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
28/2+215	285	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
28/2+350	500	Wetlands	No	Skip				
28/3+415	485	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
28/3+765	835	No name creek	No	Skip				
28/3+765	1000	Wetlands	No	Skip				

28/4+35	105	No name creek	No	Skip				
28/4+350	750	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
29/2+500	800	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
29/2+965	1035	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
29/2+1315	1385	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
29/3 775	1175	Wetlands	No	C,L&S	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
29/3+1175	1375	Salmon Creek	EFH	Cut Stump			100'	Selective Cutting
29/4+400	470	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
30/1+700	850	No name creek(2)	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
30/2+150	220	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
31/1+390	460	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
31/1+1465	1535	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
31/2+950	1250	No name creek(3)	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
31/5+0	300	Wetlands	No	C,L&S	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
31/5+715	785	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
32/1+715	785	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
32/2+0	1150	Wetlands	No	C, L&S	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
32/3+0	1075	Wetlands	No	C, L&S	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
32/4+0	1109	Wetlands	No	C, L&S	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
32/5+265	335	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
32/5+335	550	Naselle River	EFH	C,L&S			100 '	Selective Cutting

33/2+465	535	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
33/4+400	800	Wetlands	No	C,L&S	Garlon 3A	Spot Treat w/in buffer	Waters Edge	Selective Cutting
34/3+775	1650	Wetlands	No	Skip				
34/3+1565	1635	No name creek	No	Skip				

3.2 If planning to use herbicides, list locations of any known irrigation source, wells, or springs (landowners maybe able to provide this info if requested).

See Handbook — [Herbicide Use Near Irrigation, Wells or Springs](#) for buffers and herbicide restrictions.

Span		Well/irrigation/or spring	Herbicide	Buffer	Other notes/measures
From	To				
21/4 +390	710	Spring	No herbicide	164' Radius	Center of R/W
28/2 + 765	1085	Well	No Herbicide	164' Radius	Center of R/W
29/3 + 165	485	Well	No herbicide	164' Radius	Left of outside conductor

3.3 List below the areas that have Threatened or Endangered Plant or Animal Species and the name of the species, and any special measures that need to be taken due to their presence. Attach any BAs, T&E maps, or letters from US Fish and Wildlife.

See Handbook — [T&E Plant or Animal Species](#) for requirements and determining presence.

Span		T&E Species	Method/mitigation or avoidance measures
From	To		
6/1+0	6/5 + 0	Columbia Whitetail Deer	Observance of the deer in the Cathlamet City limits. Do not harass deer avoid where possible
9/9+100	300	Anadromous Salmon (Elochaman River)	Selective cutting of trees only in riparian zone and/or cutting trees tops that are within 50' of the conductor at max sag. Shrubs will not be cut that are less than 10' height where the ground to conductor clearance is less than 50' at max sag. No herbicide treatment within 100' of stream bank. 100-200' from the stream bank, chemical treatment of the stumps and/or foliar application with Garlon 3A. Top trees when shrubs are not present to provide shade and a silt buffer.

15/4 + 650	850	Anadromous Salmon (skamokawa river)	Same treatment as noted in 9/9+100 to 300.
25/1 + 500	900	Anadromous Salmon (grays River)	Same treatment as noted in 9/9+100 to 300.
32/5 +0	33/4 + 0	Bald Eagle	Seasonal restrictions from 1/1/04 to 7/15/04, no chainsaw cutting activity.
33/3 +0	34/4 +0	Marbled Murrelet	Seasonal restrictions from 3/1/03 to 8/24/04, no chainsaw cutting activity. In addition, modified seasonal restriction from 8/24 to 9/15/03, there will be no chainsaw activity 2 hours after and before sunset.

3.4 List any other measures to be taken for enhancing wildlife habitat or protecting species.

See Handbook — [Protecting Other Species](#) for requirements.

N/A

3.5 List any visually sensitive areas and the measures to be taken at these areas.

See Handbook — [Visual Sensitive Areas](#) for requirements.

N/A

3.6 List areas with cultural resources and the measures to be taken in those areas.

See Handbook – [Cultural Resources](#) for requirements.

Span		Describe sensitivity	Method/mitigation measures
From	To		
1/1	35/2	Cultural Sites	The Chinook and Cowlitz Tribes are not aware of any cultural sites on this transmission corridor. If a site is discovered during the course of vegetation control, work will be stopped in the vicinity and the local tribes will be contacted as well as the BPA Environmental Specialist.

3.7 List areas with steep slopes or potential erosion areas and the measure and methods to be applied in those areas.

See Handbook – [Steep/Unstable Slopes](#) for requirements.

N/A

3.8 List areas of spanned canyons and the type of cutting needed.

See Handbook – [Spanned Canyons](#) for requirements.

Span		Methods, cutting
From	To	
11/5 +100	1800	Ground to conductor clearance is greater than 125', selective cutting of conifer trees when the tops of the trees are within 50' of the conductor at max sag.
12/2 +500	700	Same as 11/5 +100-1800 above.
12/3 +650	1050	Same as 11/5 +100-1800 above.
13/1 +600	1400	Same as 11/5 +100-1800 above.
14/1 +900	1300	Same as 11/5 +100-1800 above.
14/1 +1600	1850	Same as 11/5 +100-1800 above.
14/2 +150	650	Same as 11/5 +100-1800 above.
14/2 +1000	1650	Same as 11/5 +100-1800 above.
14/4 +550	1300	Same as 11/5 +100-1800 above.
15/2 +500	1000	Same as 11/5 +100-1800 above.
24/1 +450	1000	Same as 11/5 +100-1800 above.
24/1 +1600	2130	Same as 11/5 +100-1800 above.
24/2 +250	550	Same as 11/5 +100-1800 above.
28/2 +300	1150	Same as 11/5 +100-1800 above.

4. DETERMINE VEGETATION CONTROL METHODS

See Handbook — [Methods](#)

4.1 List Methods that will be used in areas not previously addressed in steps above.

See Handbook — [Manual](#), [Mechanical](#), [Biological](#), and [Herbicides](#) for requirements for each of the methods.

Span		Methods, including herbicide active ingredient, trade name, application technique
To	From	
6/1	32/2	For non-sensitive areas (spans) cut stump/basal treatment with 25% Garlon 4 and 75% Forest Crop Oil (FCO). 50/50 Accord or Garlon 3A/Water for stump treatment in the non-T&E listed creek riparian zones and 100' buffer on no herbicide treatment for T&E listed creek. A late and early summer follow-up foliar treatment with Garlon 3A and Escort on sprouting stumps and/or brush. Initially, foliar treat Scotch broom as well as a follow up treatment in the spring-summer.

5. DETERMINE DEBRIS DISPOSAL AND REVEGETATION

5.1 Describe the debris disposal methods to be used and any special considerations.

See Handbook — [Debris disposal](#) for a checkbox list and requirements.

Debris Disposal:

Chip (Mechanical brush disposal unit cuts brush into chips 4 in. or less in diameter, and spread over ROW, piled on ROW, or trucked off site.

Trunks too large for the chipper are limbed and the limbs chipped. Trunks are placed in rows along the edge of the right-of-way or scattered, as the situation requires.)

Lop and Scatter (Branches of a fallen tree are cut off (lopped) by ax or chainsaw, so the tree trunk lies flat on the ground. The trunks are occasionally cut in 1-to-2-m (4-to-8-ft.) lengths. The cut branches and trunks are then scattered on the ground, laid flat, and left to decompose.)

Mulch (Mulching is a debris treatment that falls between chipping and lop-and-scatter. The debris is cut into 1-to-2-ft. lengths, scattered on the right-of-way and left to decompose. This method is used when terrain and conditions do not allow the use of mechanical chipping equipment.)

5.2 List areas of reseeding or replanting (those areas not already described in steps 1, 2, or 3).

See Handbook — [Reseeding/replanting](#) for requirements.

N/A

Native grasses are present on the entire right-of-way that will seed into the areas that will have lightly disturbed soil predominately located on the right-of-way roads. BPA expects 2-3 vehicles of the brush contractor and 1 contract inspector's vehicle will be present on the site. A brush machine will mulch the structure sites and right-of-way roads where Scotch Broom and Black Berries are present.

5.3 If not using native seed/plants, describe why.

N/A

5.4 Describe timing and any follow-up that will need to take place to ensure germination/success of seeding/planting.

Monitoring of the success of the brush-cutting program will begin the spring in which evaluation of soil erosion as a result of the brush-cutting program will be made. If grass seeding is necessary, native grass seed will be applied.

6. DETERMINE MONITORING NEEDS

See handbook — [Monitoring](#) for requirements.

6.1 Describe the follow-up/monitoring cycle that will be used to evaluate the effectiveness of the vegetation control methods used.

Monitoring of the effectiveness of the herbicide treatment will begin in the spring and follow up treatment of cut stump/basal or foliar treatment of target vegetation. The mixture of the product is 25% Garlon 4 and 75% FCO for stump treatment or 97% water, 3% Garlon 3A with 2 oz./ ac. of Escort for foliar treatment. Depo-RTU will be utilized to reduce drift when necessary.

6.2 Describe any follow-up or monitoring needed to determine if mitigation measures were effective.

Annually patrol the transmission line by the line crew and the Natural Resource Specialist will periodically monitor the right-of-way for effective mitigation measures.

7. PREPARE APPROPRIATE ENVIRONMENTAL DOCUMENTATION

See handbook — [Prepare Appropriate Environmental Documentation](#) for requirements. . Also prepare Supplement Analysis — [Supplement Analysis](#) — for signature.

7.1 Describe any potential project impacts or project work that are different than those disclosed in the Transmission System Vegetation Management Program EIS. Describe how those differences impact natural resources and if the differences are “substantial”.

All proposed brush cutting and chemical treatment activities on this corridor is noted in the EIS.

7.2 Is there a need for additional NEPA documentation (i.e. Forest Service requirement, Record of Decision, supplemental EIS)? If so, attach.

No